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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,806	02/08/2006	David John Goodwin	M03B119	4457

20411 7590 04/12/2007  
THE BOC GROUP, INC.  
575 MOUNTAIN AVENUE  
MURRAY HILL, NJ 07974-2064

EXAMINER
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TRIEU, THERESA

ART UNIT	PAPER NUMBER
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3748

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/12/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/567,806

Applicant(s)

GOODWIN ET AL.

Examiner

Theresa Trieu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,8 and 13 is/are pending in the application.
- 4a) Of the above claim(s) 2,6,7,9-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,8 and 13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date Feb. 8, 2006.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

This Office Action is responsive to the applicants' election filed on Jan. 11, 2007.

#### ***Election/Restrictions***

1. Applicant's election with traverse of the species of Figs. 5 and 6 in the reply filed on Jan. 11, 2007 is acknowledged. The traversal is on the ground(s) that the claims are directed to a single general inventive concept and thus do not lack unity of invention. This is not found persuasive because the species are independent or distinct because the special technical feature of each species is their specific scroll compressor having first and second inlets and the first and second inlets of each species is exclusive to that species. In other words, although all of the embodiments are related to a scroll compressor having first and second inlets, each embodiment of the scroll compressor having first and second inlets includes at least one technical feature that differentiates it from the other embodiments. In addition, the claims recite several limitations which are mutually exclusive to the different species as noted by the examiner in the Restriction Requirement mailed on Dec. 7, 2006. The search required for any one of the species would not be required for the remaining species.

The requirement is still deemed proper and is therefore made FINAL.

Applicant's election of the species of Figs. 5 and 6 claims 1-13 being readable thereon is also acknowledged. However, claims 2, 9, 10 and 12 belongs to species disclosed in Figs. 3 and 12; claims 6 and 7 belongs to species disclosed in Fig. 9; claim 11 belongs to species disclosed in Fig. 13; therefore, the examiner has not examined these claims. The examiner has examined claims 1, 3-5, 8 and 13 which read on the elected species of Figures 1-4 and 6. Claims 2, 6, 7 and 9-12 are withdrawn from consideration as being directed to a non-elected species.

*Specification*

2. The abstract of the disclosure does not commence on a separate sheet in accordance with 37 CFR 1.52(b)(4). A new abstract of the disclosure is required and must be presented on a separate sheet, apart from any other text.

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: “a turbomolecular having an inlet 176 connected to the first chamber 170; inlet of the second flow path ... connected to the second chamber 178” as recited in claim 8; the inlet of the first flow path is connected to the second chamber for pumping at relatively high pressures and the inlet of the second flow path is connected to the exhaust of the turbomolecular pump” as recited in claim 10.

*Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The use of alternative expression “**higher or lower**” renders the claims indefinite because the alternative choices are non-equivalent.

*Claim Objections*

5. Claim 8 is objected to, in that their subject matter needs to be incorporated into the specification and the drawings.

*Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 3, 4 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by any one of Asano et al. (Asano) (Patent Number 4,696,627) or Mizumo et al. (Mizumo) (Patent Number 5,103,652).

Regarding claims 1, 3, 4 and 5, Asano (as shown in Figs. 1-3) or Mizuno (as shown in Figs. 1, 3-6) discloses a scroll wall arrangement for a scroll compressor comprising: a fixed scroll wall (14b in Asano; 106 in Mizumo) and an orbiting scroll wall (15b in Asano; 107 in Mizumo), which together define a plurality of flow paths having respective inlets (9, 11 in Asano; 7, 9, 10 – 110, 111, 112 in Mizumo) for simultaneous pumping at different pressures, wherein the plurality of flow paths comprise a first flow path extending from a first inlet to an outlet (27a in Asano; 8, 113 in Mizumo) and a second flow path extending from a second inlet to the outlet (27a in Asano; 8, 113 in Mizumo), and wherein the second inlet is isolated from the first flow path; the second inlet is isolated from the first flow path by at least one wrap of the arrangement; the second inlet (11 Asano; 9, 10 - 111, 112 in Mizumo) being isolated from the first flow path by at least one wrap of the arrangement; the pressure at the second inlet during pumping being either higher or lower than the pressure at the first inlet (9 in Asano; 7, 110 in Mizumo).

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7. Claim 13 is rejected under 35 U.S.C. 102(b) as being anticipated by any one of Asano et al. (Asano) (Patent Number 4,696,627) or Mizumo et al. (Mizumo) (Patent Number 5,103,652).

Regarding claim 13, Asano (as shown in Figs. 1-3) or Mizuno (as shown in Figs. 1, 3-6) discloses a scroll wall arrangement for a scroll compressor comprising: a fixed scroll wall (14b in Asano; 106 in Mizumo) and an orbiting scroll wall (15b in Asano; 107 in Mizumo), which together define a plurality of flow paths having respective inlets for simultaneous pumping at different pressures, wherein the plurality of flow paths comprise a first flow path extending from a first inlet to an outlet (27a in Asano; 8, 113 in Mizumo) and a second flow path extending from a second inlet to the outlet (27a in Asano; 8, 113 in Mizumo) and wherein the second inlet (11 Asano; 9, 10 - 111, 112 in Mizumo) is isolated from the first flow path by one revolution of the fixed scroll wall (14b in Asano; 106 in Mizumo) and the second flow path extends from the second inlet through 360° where it merges with the first flow path.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Asano in view of Reich et al. (Reich) (Patent Number 4,919,599).

Asano discloses the invention as recited above; however, Asano fails to disclose a turbomolecular pump being between the first chamber for pumping at low pressure and the scroll compressor.

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Reich teaches that it is conventional in the art to utilize a first chamber 1 and a second chamber 3 having a respective interconnection therebetween; a turbomolecular pump 4, 6 having an inlet connected to the first chamber 1 for pumping at relatively low pressures. It would have been obvious to one having ordinary skill in the art at the time the invention was made, to have utilized the turbomolecular pump, as taught by Reich in the Asano apparatus, since the use thereof would have improved the performance efficiency and preventing the disturbances in the area of the vacuum pump.

***Prior Art***

The IDS (PTO-1449) filed on Feb. 8, 2006 has been considered. An initialized copy is attached hereto.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and consists of two patents: Weaver et al. (U.S. Patent Number 4,157,234) and Conrad et al. (U.S. Patent Number 5,733,104), each further discloses a state of the art.

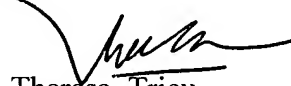
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Theresa Trieu whose telephone number is 571-272-4868. The examiner can normally be reached on Monday-Friday 8:30am- 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on 571-272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TT  
March 28, 2007



Theresa Trieu  
Primary Examiner  
Art Unit 3748